UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/841,644	ANDRADE ET AL.
	Examiner	Art Unit
	Chris Parry	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 September 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-40</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-40</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>22 September 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1, 2, 6-7, 11-12, 16-17, 21, 26, 30,

and 35 have been considered but are moot in view of the new ground(s) of rejection. In

response to applicant's arguments that Feinleib does not teach, "recognizing one or

more elements in a broadcast data stream" the examiner respectfully disagrees.

Feinleib teaches client 22 receives primary content from broadcast network and CPU 90

strips the non-video data in the VBI from the video signal. Closed captioning parser 110

monitors the closed captioning script or "recognizable element" for keywords and parser

110 compares each word to a list of key words in key phrase data fields 80(1)-80(s) of

data structure 62 (shown in figure 5). When there is a match, the parser 110 looks up

the data file for the supplemental data corresponding to the matched key phrase and

retrieves the supplemental data from the key phrase data file 62 and displays the file to

the user in the form of a hyperlink, trigger, or executable file.

2.   The examiner notes the features of the Official Notice are taken to be admitted

prior art because the applicant failed to traverse the examiner's assertion of Official

Notice for Claims 10, 20, 29, and 38.

Specification

3.   The disclosure is objected to because of the following informalities: On page 8,

paragraph 36, "such a satellite source 324" should be --such as satellite source 324--.

       Appropriate correction is required.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-3, 6-9, 11-13, 16-19, 21-22, 24, 26, 28, 30-31, 33, 35, 37, 39, and 40

are rejected under 35 U.S.C. 102(e) as being anticipated by Feinleib (U.S. 6,637,032

B1).

Regarding Claim 1, Feinleib teaches, "recognizing one or more elements in a

broadcast data stream" by disclosing closed captioning parser 110 is configured to

monitor the closed captioning script as the video program is played to detect the key

phrases or "recognizable element" listed in data file 62 (column 11, lines 5-7). Feinleib

teaches, "automatically inserting an interactive TV trigger into the broadcast data stream

based on the recognized elements" by disclosing when a group of words matches a key

phrase in the data structure 62, the parser 110 looks up in the data file for the

supplemental data or "interactive TV trigger" corresponding to the matched key phrase.

In this manner the data file is an association look-up table. The supplemental data or

"interactive TV trigger" is associated with the key phrases through the inherent

corresponding field arrangement of the data structure 62. The parser 110 retrieves the

supplemental data or "interactive TV trigger" from the key phrase data file 62 (step 132

in FIG. 7) (Col. 11, lines 51-59) Supplemental data in plaintext means it is a hyperlink,

trigger, or executable file (Col. 12, lines 28-33).

As for Claim 2, Feinleib teaches, "pre-inserting the interactive TV trigger into any

stored content that will constitute the broadcast data stream" by disclosing the authoring

computer 50 creates a key phrase data file which contains the supplemental data

associated with the key phrases. The key phrase data file is subsequently given to the

viewer-computing units 22(1) – 22(m) for use in decoding the closed captioning script

when the primary content is playing (Col. 8, lines 1-8). Feinleib further discloses the key

phrase data file can be delivered by broadcasting the data file over the broadcast

network used to carry the primary content (Col. 9, lines 40-44).

As for Claim 3, Feinleib teaches, "inserting TV triggers based on the recognized

elements of voice in the broadcast data stream" by disclosing using closed captioning

script that represents spoken words in the broadcast for the hearing impaired.

As for Claim 6, Feinleib teaches "the elements include text elements as a special

degenerate case of video elements" by disclosing the closed captioning parser 110 is

configured to monitor the closed captioning script as the video program is played to

detect the key phrases listed in data file 62 (column 11, lines 5-7).

As for Claim 7, Feinleib teaches, "automatically inserting of the interactive TV

trigger includes automatically inserting the TV trigger into the broadcast data stream

based on the recognized elements" by disclosing closed captioning parser 110 monitors

closed captioning script for key phrases. If a key phrase is found, then closed

captioning parser 110 retrieves the supplemental data and inserts the data into the stream (Col. 11, lines 51-67).

Considering Claim 8, the claimed elements of delivering the broadcast data stream with the inserted interactive TV trigger to one or more receivers for display, corresponds with subject matter mentioned above in the rejection of claim 2, and is likewise treated.

As for Claim 9, Feinleib teaches "automatically inserting of the interactive TV trigger includes automatically inserting the interactive TV trigger into the broadcast data stream within a receiver" by disclosing in figure 6, client 22 or "receiver" comprises closed captioning parser 110, which monitors the script for key phrases and retrieves supplemental data when a key phrase is found (Col. 11, lines 8-67).

As for Claim 11, Feinleib teaches "an insertion platform to insert automatically interactive TV triggers into a broadcast data stream" by disclosing in figure 6, central processing unit 90, which controls closed captioning parser 110 and key phrase data file 62 (Col. 10, line 17 – Col. 11, line 7). Further, the parser 110 retrieves the supplemental data from the key phrase data file 62 and displays supplemental data on display 100 (Col. 11, lines 51-67).

As for Claim 12, Feinleib teaches "a recognizing unit to recognize one or more elements in the broadcast data stream" by disclosing in figure 6, central processing unit 90 comprises closed captioning parser 110, which monitors the successive word groups

in the closed captioning script and matches phrases with key phrase data file 62 (Col.

11, lines 5-7).

Considering Claims 13, 24 and 33, the claimed elements of wherein the media

asset and/or element includes a voice pattern, corresponds with subject matter

mentioned above in the rejection of claim 3, and is likewise treated.

As for Claim 16, Feinleib teaches "the elements include text elements as a

special degenerate case of video elements" by disclosing the closed captioning parser

110 is configured to monitor the closed captioning script as the video program is played

to detect the key phrases listed in data file 62 (column 11, lines 5-7).

As for Claim 17, Feinleib teaches "automatically inserting of the interactive TV

trigger includes automatically inserting the TV trigger into the broadcast data stream

based on the recognized elements" by disclosing in figure 6, closed captioning parser

110, which monitors closed captioning script for key phrases. If a key phrase is found,

then closed captioning parser 110 retrieves the supplemental data and inserts the data

into the stream (Col. 11, lines 51-67).

Considering Claim 18, the claimed elements of a delivering unit to deliver the

broadcast data stream with the inserted interactive TV trigger to one or more receivers

for display, corresponds with subject matter mentioned above in the rejection of claim 2,

and is likewise treated.

Considering Claim 19, the claimed elements of wherein the receivers are to

insert automatically the interactive TV trigger into the broadcast data stream within,

corresponds with subject matter mentioned above in the rejection of claim 9, and is

likewise treated.

Regarding Claim 21, Feinleib teaches "recognizing a media asset in a broadcast

data stream" by disclosing closed captioning parser 110 is configured to monitor the

closed captioning script as the video program is played to detect the key phrases listed

in data file 62 (column 11, lines 5-7). Feinleib teaches "checking if the media asset

matches with an interactive element" by disclosing as the primary content plays, the

closed captioning parser 110 monitors the successive word groups in the closed

captioning script to determine if there is a match (step 124 in FIG. 7). Feinleib teaches

"inserting the interactive element into the broadcast data stream if the media asset

matches with interactive element" by disclosing if there is a match parser 110 retrieves

the supplemental data from the key phrase data file 62 (step 132 in FIG. 7) and inserts

supplemental data into the broadcast stream within the receiver.

As for Claim 22, Feinleib teaches "passing the broadcast data stream to one or

more receivers if the media asset does not match with an interactive element" by

disclosing a key phrase data file 62 is created that is used to reference key phrases

found in closed captioning script with supplemental data (Col. 7, lines 42-49). If a

phrase does not match with supplemental content, then the processor 52 forwards

script to client 22(1) – 22(m).

Considering Claims 26 and 35, the claimed elements of wherein the media asset

and/or elements includes a text pattern as a special degenerate case of a video pattern,

corresponds with subject matter mentioned above in the rejection of claim 16, and is

likewise treated.

Considering Claim 28, the claimed elements of wherein the interactive element

includes an interactive television (TV) trigger, corresponds with subject matter

mentioned above in the rejection of claim 1, and is likewise treated.

Regarding Claim 30, Feinleib teaches "a recognizing unit to recognize a media

asset in a broadcast data stream" by disclosing closed captioning parser 110, which is

configured to monitor the closed captioning script as the video program is played to

detect the key phrases listed in data file 62 (column 11, lines 5-7). Feinleib teaches "a

checking unit to check if the media asset matches with an interactive element" by

disclosing as the primary content plays, the closed captioning parser 110 monitors the

successive word groups in the closed captioning script (step 124 in FIG. 7) (column 11,

lines 28-30) and compares the found phrases to phrases stored in key phrase data file

(Col. 11, lines 28-35). Feinleib teaches "an inserting unit to insert the interactive element

into the broadcast data stream if the media asset matches with interactive element"

when a match is made, the parser 110 looks up in the data file for the supplemental

data corresponding to the matched key phrase. In this manner, the data file is utilized as

an association look-up table. The supplemental data is associated with the key phrases

through the inherent corresponding field arrangement of the data structure 62. The

parser 110 retrieves the supplemental data from the key phrase data file 62 (step 132 in

FIG. 7) (column 11, lines 51-59). Supplemental data is then added to the broadcast data

stream within the receiver.

Considering Claim 31, the claimed elements of a passing unit to pass the broadcast data stream to one or more receivers if the media asset does not match with an interactive element, corresponds with subject matter mentioned above in the rejection of claim 22, and is likewise treated.

Considering Claim 37, the claimed elements of wherein the interactive element includes an interactive television (TV) trigger, corresponds with subject matter mentioned above in the rejection of claim 1, and is likewise treated.

Regarding Claim 39, Feinleib discloses "recognizing a media asset in a broadcast data stream" by disclosing closed captioning parser 110, which is configured to monitor the closed captioning script as the video program is played to detect the key phrases listed in data file 62 (column 11, lines 5-7). Feinleib teaches "checking if the media asset matches with an interactive element" by disclosing as the primary content plays, the closed captioning parser 110 monitors the successive word groups in the closed captioning script (step 124 in FIG. 7) (column 11, lines 28-30) and compares the found phrases to phrases stored in key phrase data file (Col. 11, lines 28-35). Feinleib teaches. Feinleib teaches "inserting the interactive element into the broadcast data stream if the media asset matches with interactive element" when a match is made, the parser 110 looks up in the data file for the supplemental data corresponding to the matched key phrase. In this manner, the data file is utilized as an association look-up table. The supplemental data is associated with the key phrases through the inherent corresponding field arrangement of the data structure 62. The parser 110 retrieves the supplemental data from the key phrase data file 62 (step 132 in FIG. 7) (column 11,

lines 51-59). Supplemental data is then added to the broadcast data stream within the receiver.

Considering Claim 40, the claimed elements of passing the broadcast data stream to one or more receivers if the media asset does not match with an interactive element, corresponds with subject matter mentioned above in the rejection of claim 22, and is likewise treated.

3.   Claims 1, 11, 21, 30, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Reynolds et al. "Reynolds" (U.S. 2001/0037500).

Regarding Claim 1, Reynolds teaches, "recognizing one or more elements in a broadcast data stream" by disclosing stripper 132 recognizes meta data 114 or "element" and removes it from signal 110 (¶ 31). Reynolds teaches, "automatically inserting an interactive TV trigger into the broadcast data stream based on the recognized elements" by disclosing processor 134 determines if substituting the meta data 114 is necessary by reviewing the specification of the announcement. If the specification allows, processor 134 will replace meta data component 114 with local meta data 142 (¶ 32-41).

Regarding Claim 11, Reynolds teaches "an insertion platform to insert automatically interactive TV triggers into a broadcast data stream" by disclosing in figure 2, meta data substitution system 100. Reynolds teaches stripper 132 removes the meta data component 114 from signal 110 and processor 134 makes the determination if local meta data should be inserted. Inserter 136 receives new local meta data from local

meta data center 140 and combines meta data with video 135 to make a new combined

signal 110'.

Regarding Claim 21, Reynolds teaches, "recognizing a media asset in a

broadcast data stream" by disclosing stripper 132 removes meta data component 114

from signal 110. Reynolds teaches "checking if the media asset matches with an

interactive element" by disclosing processor 134 determines whether meta data

component 114 can be replaced with local meta data from local meta data center 140.

Reynolds teaches "inserting the interactive element into the broadcast data stream if the

media asset matches with interactive element" by disclosing inserter 136 combines

video 136 with local meta data 142 to output signal 110'.

Regarding Claim 30, Reynolds teaches "a recognizing unit to recognize a media

asset in a broadcast data stream" by disclosing stripper 132. Reynolds teaches "a

checking unit to check if the media asset matches with an interactive element" by

disclosing processor 134. Reynolds teaches "an inserting unit to insert the interactive

element into the broadcast data stream if the media asset matches with interactive

element" by disclosing inserter 136.

Regarding Claim 39, Reynolds teaches, "recognizing a media asset in a

broadcast data stream" by disclosing stripper 132 removes meta data component 114

from signal 110. Reynolds teaches "checking if the media asset matches with an

interactive element" by disclosing processor 134 determines whether meta data

component 114 can be replaced with local meta data from local meta data center 140.

Reynolds teaches, "inserting the interactive element into the broadcast data stream if

the media asset matches with interactive element" by disclosing inserter 136 combines

video 136 with local meta data 142 to output signal 110'.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

5.   Claims 10, 20, 29, and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Feinleib.

Regarding Claims 10, 20, 29, and 38 Feinleib teaches monitoring closed

captioning script for key phrases and inserting supplemental data when a key phrase is

found. However, Feinleib fails to explicitly disclose using ATVEF triggers. Applicant's

admission provides evidence that it is notoriously well known in the art of inserting

enhanced content into the broadcast, to use ATVEF triggers as the Advanced

Television Enhancement Forum Specification was developed to define the

fundamentals necessary to enable creation of HTML-enhanced television content so

that it can be reliably broadcast across any network to any compliant receiver.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of Feinleib in order to insert interactive TV

triggers that include ATVEF triggers.

6.   Claims 4-5, 14-15, 23, 25, 27, 32, 34, and 36 are rejected under 35 U.S.C.

103(a) as being unpatentable over Feinleib in view of Perlman (U.S. 6,577,346).

        As for Claim 4, Feinleib fails to disclose inserting TV triggers based on the

recognized elements of other audio elements in the broadcast data stream. In a related

art pertaining to video distribution, Perlman teaches a system for recognizing a pattern

in a video segment using the viewable video image data and/or the video sound or

"audio elements" to identify the video segment (column 9, lines 52-55). Perlman further

discloses in figure 3, after a pattern is recognized in the video segment (step 330), if a

match is found in the table ("YES" in decision block 350), then the video segment is

identified as being the video segment that corresponds to the pattern in the table (step

360). The management unit 102 might perform any number of functions with this

identification. For example, if the video segment is identified as being a commercial for

a specific product, the management unit might cause an icon to be displayed or "an

interactive TV trigger be provided" on the display device 104. If the viewer selects the

icon or "trigger", the management unit 102 might, for example, transmit a Web page

request corresponding to the product advertised so that the viewer can obtain more

information concerning the product if desired (column 7, lines 16-38). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Feinleib with the teachings of Perlman by inserting TV triggers based on

the recognized elements of audio and video within the broadcast data stream. One

would have been motivated to insert TV triggers based on the aforementioned

recognized elements for the advantage of inserting TV triggers at any point during the

broadcast where enhanced content would be appropriate and closed captioning script would not be able to identify.

Considering Claim 5, the claimed elements of wherein the elements include video elements, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

Considering Claim 14, the claimed elements of wherein the elements include other audio elements, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

Considering Claim 15, the claimed elements of wherein the elements include video elements, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

Considering Claims 23 and 32, the claimed elements of wherein the media asset and/or element includes an audio pattern, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

Considering Claims 25 and 34, the claimed elements of wherein the media asset and/or element includes a video pattern, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

As for Claim 27, Feinleib teaches "checking if the media asset matches with the interactive element" by disclosing parser 110 looks up in the data file for the supplemental data or "interactive data" that corresponds to the matched phrase or "media asset". For example, if the phrase "oh hi how are you" is detected then the

parser retrieves the hyperlink *www.greetingcardco.com* which is associated with the phrase. However, Feinleib fails to disclose checking if the media asset matches with an attribute associated with the interactive element. In a related art pertaining to video distribution, Perlman discloses if a commercial segment or "media asset" is identified, the management unit or "checking unit" can display an interactive icon or "interactive element", that when selected, will provide the user with a Web page/hyperlink or "attribute" corresponding to the product that will provide more information about the advertised product. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Feinleib with the teachings of Perlman in order to check if the media asset matches with an attribute associated with the interactive element for the benefit of inserting interactive elements that match media assets in the broadcast data stream for timely delivery of enhanced content.

Considering Claim 36, the claimed elements of wherein the checking unit is to check if the media asset matches with an attribute associated with the interactive element, corresponds with subject matter mentioned above in the rejection of claim 27, and is likewise treated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Parry whose telephone number is (571) 272-8328. The examiner can normally be reached on Monday through Friday, 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Examiner's Initial's: CLP   Patent Examiner
October 31, 2005   Art Unit 2614